

CLAIMS

1. A method comprising:
receiving a broadcast data stream, wherein the broadcast data stream is encoded using any encoding format;
demultiplexing the received broadcast data stream;
storing the received broadcast data stream on a storage device; and
time shifting the broadcast data stream.

2. A method as recited in claim 1 wherein the broadcast data stream is a digital data stream.

3. A method as recited in claim 1 wherein the broadcast data stream may utilize any data format.

4. A method as recited in claim 1 wherein storing the received broadcast data stream on a storage device includes writing the broadcast data stream to an application programming interface.

5. A method as recited in claim 1 further comprising retrieving the broadcast data stream from the storage device.

6. A method as recited in claim 1 further comprising multiple systems retrieving the broadcast data stream simultaneously.

1 7. A method as recited in claim 1 further comprising retrieving different
2 portions of the broadcast data stream simultaneously.

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4 8. A method as recited in claim 1 wherein the received broadcast stream
5 is stored on the storage device using a plurality of temporary files.

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7 9. A method as recited in claim 1 wherein the received broadcast stream
8 is stored on the storage device using a single temporary file.

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10 10. A method as recited in claim 1 wherein the received broadcast
11 stream is stored on the storage device using at least one permanent file.

12
13 11. One or more computer-readable memories containing a computer
14 program that is executable by a processor to perform the method recited in claim
15 1.

16
17 12. A method comprising:
18 receiving a digital data stream;
19 separating components of the digital data stream;
20 storing the components of the digital data stream on a storage device;
21 receiving a command to play back the digital data stream;
22 retrieving at least one of the stored components of the digital data stream
23 from the storage device; and
24 rendering the components of the digital data stream in a manner that
25 corresponds to the received play back command.

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2 **13.** A method as recited in claim 12 further comprising:
3 receiving a command to pause play back of the digital data stream; and
4 halting rendering of the components of the digital data stream in response
5 to the pause command.

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7 **14.** A method as recited in claim 12 wherein the play back command is
8 a play command.

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10 **15.** A method as recited in claim 12 wherein the play back command is
11 a rewind command.

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13 **16.** A method as recited in claim 12 wherein the play back command is
14 a fast forward command.

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16 **17.** A method as recited in claim 12 wherein the play back command is
17 a seek command.

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19 **18.** A method as recited in claim 12 wherein the play back command is
20 a slow motion play command.

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22 **19.** A method as recited in claim 12 wherein the play back command is
23 a skip forward command.

1 **20.** A method as recited in claim 12 wherein the play back command is
2 a skip backward command.

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4 **21.** A method as recited in claim 12 wherein storing the components of
5 the digital data stream on a storage device includes writing the components of the
6 digital data stream to an application programming interface.

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8 **22.** A method as recited in claim 12 wherein the storage device is a hard
9 disk drive.

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11 **23.** A method as recited in claim 12 wherein the storage device is a hard
12 disk drive and components of the digital data stream are stored in at least one
13 temporary file or at least one permanent file on the hard disk drive.

14
15 **24.** A method as recited in claim 12 wherein the digital data stream can
16 be encoded using any encoding format.

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18 **25.** A method as recited in claim 12 wherein the digital data stream may
19 utilize any data format.

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21 **26.** A method as recited in claim 12 wherein multiple devices retrieve
22 the stored components of the digital data stream simultaneously.

1 **27.** A method as recited in claim 12 wherein retrieving the stored
2 components of the digital data stream includes:

3 a first device retrieving data associated with a first data stream stored on the
4 storage device; and

5 a second device simultaneously retrieving data associated with a second
6 data stream stored on the storage device.
7

8 **28.** A method as recited in claim 12 wherein retrieving the stored
9 components of the digital data stream includes:

10 a first device retrieving data from a first location in the digital data stream;
11 and

12 a second device simultaneously retrieving data from a second location in
13 the digital data stream.
14

15 **29.** A method as recited in claim 12 wherein separating components of
16 the digital data stream includes demultiplexing video data and audio data from the
17 digital data stream.
18

19 **30.** A method as recited in claim 12 wherein separating components of
20 the digital data stream includes demultiplexing Internet Protocol data from the
21 digital data stream.
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23
24
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1 **31.** One or more computer-readable memories containing a computer
2 program that is executable by a processor to perform the method recited in claim
3 12.
4

5 **32.** A method comprising:
6 receiving a broadcast data stream;
7 separating components of the broadcast data stream;
8 storing the components of the broadcast data stream on a storage device;
9 retrieving the components of the broadcast data stream from the storage
10 device;
11 rendering the components of the broadcast data stream; and
12 receiving a request to pause rendering of the broadcast data stream, in
13 response to the pause request:
14 halting rendering of the broadcast data stream;
15 continuing to store the components of the broadcast data stream on
16 the storage device.
17

18 **33.** A method as recited in claim 32 wherein the broadcast data stream is
19 a television broadcast.
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21 **34.** A method as recited in claim 32 wherein the broadcast data stream is
22 a digital data stream.
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1 **35.** A method as recited in claim 32 further comprising:
2 receiving a request to resume rendering of the broadcast data stream; and
3 rendering the broadcast data stream based on the request to resume
4 rendering of the broadcast data stream.

5
6 **36.** One or more computer-readable memories containing a computer
7 program that is executable by a processor to perform the method recited in claim
8 32.

9
10 **37.** One or more computer-readable media having stored thereon a
11 computer program that, when executed by one or more processors, causes the one
12 or more processors to:

13 separate the components of a broadcast data stream;
14 store the components of the broadcast data stream on a hard disk drive;
15 receive a request to play back the stored components of the broadcast data
16 stream;
17 retrieving the stored components of the broadcast data stream from the hard
18 disk drive; and
19 rendering the components of the broadcast stream.

20
21 **38.** One or more computer-readable media as recited in claim 37
22 wherein rendering the components of the broadcast stream includes rendering the
23 components of the broadcast stream in a manner that corresponds to the received
24 play back request.
25

1 **39.** One or more computer-readable media as recited in claim 37
2 wherein rendering the components of the broadcast stream includes rendering
3 multiple copies of the broadcast stream simultaneously.
4

5 **40.** One or more computer-readable media as recited in claim 37
6 wherein the broadcast data stream is a television broadcast.
7

8 **41.** One or more computer-readable media as recited in claim 37
9 wherein the separate components of a broadcast data stream are audio data and
10 video data.
11

12 **42.** One or more computer-readable media as recited in claim 37
13 wherein the separate components of a broadcast data stream include Internet
14 Protocol data.
15

16 **43.** An apparatus comprising:
17 a capture module configured to capture a data stream, wherein the data
18 stream may be represented in a plurality of different data formats;
19 a data storage module configured to store the captured data stream; and
20 a rendering module configured to render the data stream from the data
21 stored on the data storage module.
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23 **44.** The apparatus of claim 43 wherein the data stream is encoded using
24 any encoding format.
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1 **45.** The apparatus of claim 43 wherein the data storage module stores
2 the captured data stream prior to decoding the captured data stream.

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4 **46.** The apparatus of claim 43 wherein the capture module is further
5 configured to separate the components of the data stream and the data storage
6 module is further configured to store each of the separate components of the data
7 stream.

8
9 **47.** The apparatus of claim 43 wherein the data storage module includes
10 at least one hard disk drive.